Boosting to Bio-Technology Sector

*350. SHRI PARMESHWAR KUMAR AGARWALLA: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that India is posing for phenomenal growth in Bio-technology;

(b) if so, what is the estimated potential of the country; and

(c) what steps are being taken to give a boost to the Bio-technology sector?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. MURLI MANOHAR JOSHI): (a) to (c) Yes, Sir. The growth of biotechnology has been exponential in the last decade with various initiatives taken in public and private sector. India has enormous potential to utilize biotechnological tools for increasing the productivity and efficiency of agriculture, healthcare, environmental protection and industrial sectors. As per the estimates of Confederation of Indian Industry (CII), the actual consumption of biotech products during 1999 was about US$ 1.78 billion and is projected to grow to US$ 4.27 billion by 2010. The biotech products in high demand are for human and animal healthcare, agriculture including genetically superior seeds, industry and other value added recombinant products. With the advent of bioinformatics, genomics and proteomics, it is estimated that the growth of this sector will be further accelerated covering almost every facet of life.

Government of India has made concerted efforts to speed up research and development, application and commercialization of research leads. From Rs. 622 crore in Ninth Plan (1997—2002), an outlay of Rs.1450 crore for the Tenth Plan (2002—07) has been allocated. Further impetus has been provided with the establishment of 62 bioinformatics centres, 25 state-of-the-art biotech facilities, Centres of Excellence and 64 postgraduate teaching programmes, establishment of a National Bioresource Development Board, new institutions like National Brain Research Centre, National Centre for Plant Genome Research and Institute of Bioresource and Sustainable Development in addition to many other national laboratories in frontier areas of biology and biotechnology. Significant achievements have been in obtaining research leads, transfer of technology, large scale demonstrations and commercialization of

products. Vaccines, diagnostic kits, drug delivery systems and bioremediation methods, tissue culture protocols, bio-fertilizers and biopesticides are at various stages of development and commercialization.

To boost the biotech sector for the Biotech Product and Process Development, the Government has given various incentives to the biotech industry through fiscal measures, custom and excise duty exemptions, tax holidays for R&D expenditure, encouraging Foreign Direct Investment (FDI), speedy clearance of FDI projects by Foreign Investment Promotion Board (FIPB), constitution of Fast Track Committee (FTC) under Foreign Investment Implementation Authority (FIIA) etc. To inculcate biotech industry in small-scale sector, a Task Force and a Biotechnology Cell have been created in the Ministry of Small Scale Industries, Agro and Rural Industries in association with Department of Biotechnology. A sensitization programme in the form of workshops has jointly been initiated for awareness building in SSI entrepreneurs.

State Governments have taken initiatives to establish biotechnology parks and incubators, separate biotech departments and institutes specially to focus on local problems. Successful mission projects with biotechnological interventions are under implementation in the areas of vaccines, coffee improvement, herbal product development and establishment of genomic databases. International collaboration has been strengthened with many developed and developing countries in the areas of mutual benefit. Research in new areas like nanobiology, structural and computational biology has also been initiated. The main objective of the above measures is to develop a strong capability in the field and harness the potential of biotechnology for societal benefit and economic progress.

Reduction in Green House Gases

*353. SHRI AIMADUDDIN AHMED KHAN (DURRU): Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether Government have decided to ratify the Kyoto Protocol of 1997, for a time bound reduction of Green House Gases, responsible for global warming and climatic changes;

(b) if so, the details in this regard and the steps taken so far, in that direction;

(c) the steps taken by Government for reduction of green house gases, since 1997, so far; and